

**Abstract of the Disclosure**

A ruled line extracting apparatus obtains  
circumscribed rectangles of pixel concatenation  
5 regions included in an input pattern, and calculates  
the most frequent value of their heights.  
Additionally, the apparatus integrates segments by  
ignoring a wild card segment, and calculates the most  
frequent value of height/width of extracted straight  
10 lines and segments structuring the straight line.  
Next, it performs a process for integrating/deleting  
straight lines using each threshold value based on the  
highest frequency value. Then, it checks/deletes a  
straight line according to a distribution of black  
15 pixels around the straight line, and recognizes the  
remaining straight lines as ruled line candidates.

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